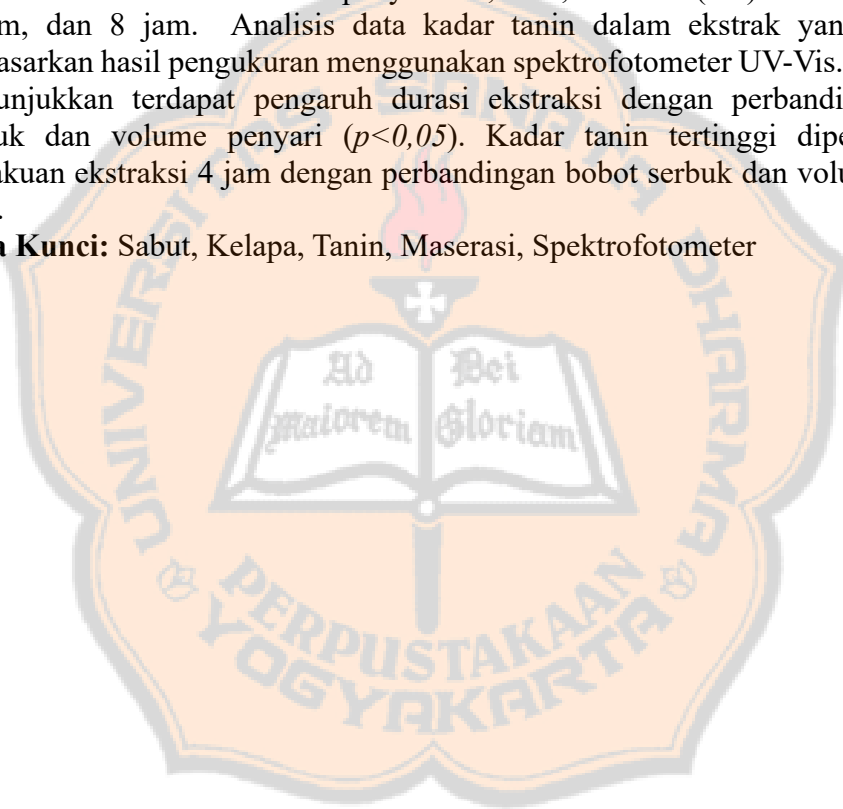


ABSTRAK

Sabut kelapa merupakan limbah yang keberadaannya meningkat seiring pemanfaatan air kelapa dan daging kelapa muda. Sabut kelapa mengandung tanin yang dapat berkhasiat sebagai astringent, antidiare, antihemoragik, antikarsinogen, antimikroba, antioksidan, antiinflamasi, antidiabetes, dan *wound repair* atau perbaikan luka. Tanin dapat diperoleh dari sabut kelapa melalui ekstraksi menggunakan etanol 96% dengan metode maserasi. Efektivitas ekstraksi dapat dipengaruhi oleh beberapa faktor, termasuk perbandingan bahan dan pelarut serta lama waktu ekstraksi. Penelitian ini bertujuan mengetahui pengaruh perbandingan bobot serbuk sabut kelapa dan volume penyari serta durasi maserasi terhadap kadar tanin yang diukur sebagai mg katekin ekuivalen per gram ekstrak menggunakan metode Vanilin-HCl. Gambaran pengaruh dilihat melalui variasi perbandingan bobot serbuk sabut dan volume penyari 1:5; 1:10; dan 1:20 (b/v) serta durasi 2 jam, 4 jam, dan 8 jam. Analisis data kadar tanin dalam ekstrak yang diperoleh berdasarkan hasil pengukuran menggunakan spektrofotometer UV-Vis. Uji statistik menunjukkan terdapat pengaruh durasi ekstraksi dengan perbandingan bobot serbuk dan volume penyari ($p < 0,05$). Kadar tanin tertinggi diperoleh pada perlakuan ekstraksi 4 jam dengan perbandingan bobot serbuk dan volume penyari 1:10.

Kata Kunci: Sabut, Kelapa, Tanin, Maserasi, Spektrofotometer



ABSTRACT

Coconut fiber is a waste whose existence increases along with the utilization of coconut water and young coconut meat. Coconut fiber contains tannins which can be efficacious as astringents, antidiarrheals, antihemorrhagic, anticarcinogenic, antimicrobial, antioxidants, anti-inflammatory, antidiabetic, and wound repair. Tannins can be obtained from coconut fiber through extraction using 96% ethanol with the maceration method. The effectiveness of extraction can be influenced by several factors, including the ratio of materials and solvents and the duration of extraction. This study aims to determine the effect of the ratio of coconut fiber powder weight and solvent volume and maceration duration on tannin levels measured as mg catechin equivalents per gram of extract using the Vanillin-HCl method. The description of the effect is seen through variations in the ratio of coconut fiber powder weight and solvent volume 1:5; 1:10; and 1:20 (w/v) and durations of 2 hours, 4 hours, and 8 hours. Analysis of tannin content data in the extract obtained based on measurement results using a UV-Vis spectrophotometer. Statistical tests showed that there was an effect of extraction duration with a ratio of powder weight and solvent volume ($p < 0.05$). The highest tannin content was obtained in the 4-hour extraction treatment with a ratio of powder weight and solvent volume of 1:10.

Keywords: Fiber, Coconut, Tannin, Maceration, Spectrophotometer

